

Methow Restoration Council

October 16, 2012

Participants:

Name	Organization/Affiliation
Allen Lebovitz	WDNR
Amanda Barg	WDFW
Char Schumacher	Okanogan County
Chris Butler	Yakama Nation
Chris Johnson	MSRF
Chuck Peven	RTT
Dan Haller	Aspect Consulting
David Thompson	UW
Derek Van Marter	UCSRB
Dick Ewing	Twin Lakes Aquifer Coalition
Don Phillips	Local Landowner
Gene Shull	Forest Service
Hans Smith	Yakama Nation
Jarred Johnson	Yakama Nation
Jennifer Molesworth	Reclamation
Jeri Timm	WWP-TU
Jessica Goldberg	MSRF
John Crandall	Wild Fish Conservancy
Julie Grialou	Methow Conservancy
Kate Terrell	US Fish and Wildlife Service/RTT
Ken Bevis	WDFW
Lee Bernheisel	Okanogan Wilderness League
Lori Triplett	Twin Lakes Aquifer Coalition
Mark Schuppe	Office of the Columbia River
Michael Notaro	Watershed Resource Solutions
Roy Beaty	Bonneville Power Administration

Meeting Notes:

Roy Beaty—BPA Targeted Solicitation Abstracts: summary of the results from the targeted solicitation abstract request (handout): 21 abstracts submitted, 1 withdrawn, 13 met the criteria. Some of the abstracts were not submitted as requested, and so six were initially rejected, but Jennifer talked me into taking them back. But, for next time, be sure to submit them as requested. Next steps, proposals will be requested directly from the sponsors.

Lee Bernheisel—questions regarding the Office of Columbia River Management Fund, project costs and descriptions

Roy—there is no agreement with the sponsors for public distribution of the abstracts

Chris Johnson—do we have a schedule for when the proposals will be due?

Roy—tentatively at the end of November, will follow up. There is a big slate of projects for the Methow, it will be very competitive, probably be put on the list going out to 2014, 2016. Jennifer Molesworth—they probably will go out to 2018; I'm not sure that people submitted them thinking of proposals for 2014-15.

Chris J—I think that we can get together and put a schedule together. Roy—true, local coordination beforehand would be beneficial, and the emphasis should be on the earlier projects. BPA will coordinate with Reclamation on priorities.

John Crandall—monitoring update: two primary topics today; the first is that we are making an effort to try and get all of the monitoring work that we are doing in the Methow in the www.monitoringmethods.org website, which is a PNW-wide monitoring forum. It is kind of like Habitat Work Schedule; it's a clearinghouse for all things monitoring. The Upper Columbia is not well represented yet. Some folks have been calling the Methow an IMW, but it doesn't quite meet the criteria for an IMW; Entiat is a good example of a true IMW. Within an IMW, you have a strong study plan with statistics, protocols, and a set restoration schedule; this is more or less known in the Entiat. So trying to push away from the IMW designation, but I have also trying to get all of our protocols together in one place; have been talking with the different monitoring sponsors, trying to create a group. We now have a contest for naming the Methow monitoring group—we need a catchy acronym, will get a sheet that will get plugged into Monitoring Methods, a placeholder that shows that we have a coordinated effort to get things together. I'm currently working with Torre Stockard on that. The second topic is following up on implementation monitoring, trying to figure this stuff out. There is a lot of work on the ground; we have effectiveness monitoring to see how the projects are meeting the goals, and I'm trying to encourage habitat folks to see what work they are doing to assess how the projects are doing. This is the accountability piece for the restoration project, do you have a protocol, and how are you documenting that. Need a template for how project plans are going. Encourage people in the habitat world to think about monitoring. James White at UCSRB started implementation monitoring last year to back up the SRFB effort. They have protocols for different types of projects and it is statewide. In the Upper Columbia, we have several projects, but the SRFB saw a gap because there were not enough projects following the protocols in the region. So, UCSRB got funding to densify the project types in the upper Columbia. They had three target types, in the Methow, Wenatchee, and the Entiat, and now they have several more of each project types being monitored. James has written an implementation monitoring protocol, and I encourage you to use it, but it does take resources to implement it. I have sent it out, but haven't gotten responses.

Chris J—concerned about the instream complexity and connectivity monitoring, that it doesn't take into consideration the intent of the project.

Allen Lebovitz—happy to hear about coordination of the implementation monitoring; it is part of the DNR agreement requirements, and I would love to coordinate with what you are doing. We are also trying to develop our requirements for implementation monitoring, would like to be consistent, as you go forward, would like to work with you and be on your mailing list. Need to be able to track them, see how they perform, and make sure that we know where all of the projects are so we don't authorize things on top of each other that don't fit with the plan. Will be working on coordinating with work on State Owned Aquatic Lands (SOAL), as well as uplands

Discussion—data collection is happening in a lot of places, everyone wants to be the central database storage.

John—a lot of the parts of the protocols would seem big and scary, but we need to look at what meets the needs of the original project intention. I'm currently in the throes of developing the monitoring plan for the Methow, and I want to include implementation monitoring. It would be great to see the Methow take the lead in terms of how we are going to do this.

Chris J—please resend James' monitoring protocols. We also need to have a realistic discussion with the funders about how we are going to fund this. John—we need to be realistic about what we need for each project; we are trying to find something that is not resource heavy, but that gets us something valuable. Chris J—I recommend talking with Marc Dubois at RCO, Becky Gallaher at Trib, because they

often preclude any kind of monitoring in their grant agreements. Allen—would like to be involved, can talk with SRFB, I possibly have some funding.

Chris Johnson—Upper M2 Update: At the RM 46 project just downstream of MVID E diversion, we installed three structures. The first was a larger excavated gravity structure designed to create pool habitat and cover on the margin, the other two were smaller pile-supported structures designed to capture mobile wood. It was a successful project, on budget, with happy landowners.

On the opposite bank on the Whitefish Island side channel, we are installing wood structures, also BPA funded. We have built a nearly 200-ft length live log crib, eleven layers high, that goes down around 14 ft into the river bank. We took the Methow Conservancy stewardship committee out again, they looked at the project before construction, did a midway tour, and will do a final tour after construction. Lee B—were there any effects on the redds at the bottom of the channel? Chris J—we are fully isolated from the river, so no effect. We had about 8 days of 24 hour pumping. Will be increasing the apex jam at the head of the island, expect the side channel activation may change over time. You will notice the lower pool at Witte road is much larger and will have a better connection to the river. Had 20 fish survive in the pool last year, expect that number to increase. We are also moving forward with phase 2 of the WDFW-Obanion site for next year, and we are working with BPA to evaluate using pile driving for pile installation rather than excavating.

Chris Butler and Hans Smith—questions regarding BPA requirements on coordination and WDFW? Roy—BPA would like the coordination to happen locally so that BPA doesn't have to worry about competing projects on WDFW land between WDFW and another sponsor, is difficult Discussion—how MRC is the coordinating body for project proposals, how the interaction, review, and sharing will happen. Chris J—the MRC is not a review body, the intent is to share. MRC has a new web site www.methowrestorationcouncil.org, should be a good resource to develop, it is designed to make a one-stop place for people to go.

Chris Butler—Chewuch River Project Updates: RM 10 and RM 8 project are in the replanting stage now, and it will happen next week. Both will be considered completed except for the monitoring that will go on after. With FS, we completed almost 8 miles of fence building for cattle exclusion. We had some project tours recently. Last August, we presented the conceptual projects for the RM 11.75-13 project, had a public scoping process, and we came up with a preferred alternative with the FS.

Gene Shull—we (Forest Service) were handed a proposal from YN and InterFluve, then we went through a process: we came up with a desired future condition, developed a rough range of numbers of pieces of wood per mile, went out and looked at what is in the area, which is in a natural depositional area, based on the amount of natural wood out there now, and how far we are from what we desired, then came up with what we would accept for large wood in the area, also considered all the wood that would go in on the state plan. Chris B—we are working on an MOA between YN and WDFW, expected December. Projects target cover habitat. (PowerPoint). We hope to build the Forest Service side on river left in 2013, the WDFW side in 2014. We are currently on track to get to RM 20 in 2018.

Amanda Barg—WDFW Screening Project: came to introduce myself and the program to the MRC, talking generally about my project: from grant county, we have funding to do maintenance to existing screen sites and capital funds to do new projects on new screen sites in the Upper Columbia. We are here to partner and cost share when we can, not necessarily trying to be the lead, looking to partner to cost-share on improving sites and new construction. We also have a great resource in the Yakima screen shop, can work with them on screen inspection, offer service contracts to make sure that screens are operating at functional capacity. Emphasis is on juvenile survival. Focus is on screening, if we can tie

in to restoration that would be great, juvenile survival, off-channel rearing habitat, bypass function. Chris J—Amanda came out to look at a diversion on Beaver Creek, and we are trying to find a way to look at the bypass reach as off-channel habitat as a partnership between agencies and landowners. These can be tricky projects, but we can create beneficial habitat as a benefit of irrigation diversions. Kate—can use safe harbor agreements with landowners. Chris J—hard part is who is responsible when the irrigation ditch is shut off, like in the winter, who has liability for those endangered fish. Ken—there are some real opportunities here to use WDFW as a resource.

Ken Bevis—Salmon Celebration/Outreach Update: the Salmon Celebration was successful; we had wood carver (Bruce Morrison), an art opening, the Rolling River, Audubon, mask creation station, planted some bushes, Yakama coho in a tank up front. We had the Community School's big blue bus going from TwispWorks to the Twisp Ponds. Dedication of the art pieces, very successful, weather was nice. Had about 275 at the TwispWorks, Methow Mountain Boys played bluegrass, with lights, a stage, and Bud Hover said a few words, Methow Band. We had excellent food—we had 42 salmon donated from the Colville Tribes, auctioned off a fish to benefit the MVIC; it was just the right amount of food, and was a grand success. We started earlier than last year, and it didn't go on too long. Had donations from TU, CCFEG, UCSRB, had outreach funding through MSRF, had table displays that were well attended; it was a very nice outreach opportunity. Chris J—we had a suggestion/comment box, got far more than we expected. Expect to use comments for an MV news piece, we raffled off one of the river-fish yet to be created from a 1941 Ford. Derek Van Marter—suggest dropping the fundraising part of the event. Ken—I got the same feedback; it was a learning curve, a good example of having different partners. We had a very focused participation around the dinner. We are trying to think of how to get more focused outreach results next year. Michael Notaro—if you haven't been to the interpretive center, you need to go; it is very well done. Ken—CCFEG is looking at doing "fish flicks"; they have several different films, pay attention for announcements. John—the Methow fish guides are out; I'm still working on the distribution part of it. Kate Terril—USFWS will be hiring some outreach staff in Leavenworth.

Twin Lakes Aquifer Project

Presentation by Mark Schuppe and Dan Haller

Mark—I am with Department of Ecology, Dan is with Aspect Consulting; we also have Dick Ewing with the Twin Lakes Aquifer Project, and we have just issued a determination of significance under SEPA, beginning scoping. This has been a long, ongoing project, have been with it since 2004, working on Big and Little Twin Lakes, with declining lake levels. Aspect Consulting has been collecting impact data. Ecology was directed by Legislature to investigate the problem; we believe that in part it is due to efficiency improvements made to the Wolf Creek Reclamation District. We have looked at a lot of strategies and permitting options. We are looking at a storage option, with eventual discharge to the Methow River and re-time the water. We would be taking water from groundwater wells next to the Methow River and release it. Lee B—question the rate of recharge to the Methow River. Dan—it is true that the lakes are in continuity with the Methow, but there it also has a storage capacity. It would be an interruptible water right out of the mainstem Methow, it would return to Methow, with about 30% lost to evaporation. Of the 70% that returns to the Methow, 90% goes in the same path (no transport reach), the other 10% goes southward. We plan to do pilot testing to see where the groundwater levels go. Not sure if the pilot phase will happen; it is dependent on a number of factors, but it would test the veracity of the models. Ecology has assembled all of the comprehensive studies and put them on the web site as part of the SEPA scoping: <http://www.ecy.wa.gov/programs/wr/cwp/tlws.html>. Still a 10-ft drop in lake levels. The Determination of Significance was started yesterday, and we have a 60-day scoping period, Ecology and the county are co-lead entities. We will host an event at the Barn on

November 7th; the purpose is to solicit comments, and determine whether to go forward and if we need to do additional scoping. Lee B—I have also been involved since the beginning, the lake level fluctuates every year with the river levels, timing was like three weeks between Twin Lakes and the Methow. The irrigation district was supplemental. Looks like you are trying to create the same unnatural situation that you had when you had the leaky irrigation system. This will be very costly. It seems to have stabilized since the irrigation district became more efficient.

John—what is the pumping plan? If it is only that you could pump year-round as long as the Methow River is above the minimums, the conservative thing to do is to only pump when you have excess or peak flows. Dan—that is what the scoping process is intended to do. Ecology is directed by the legislature to evaluate the water right applications. There is also a volumetric restriction on the water right, could also limit the diversionary period, etc., that is the feedback that Ecology is looking for. Lee—how do you come up with the steady state number? Question the science behind the return flow numbers. The change seems to be more political than from a standpoint of doing something for the river. Dan—the intent here is to be very open, the numeric model is available, and the model shows that after 10 years of steady state conditions, the water returns continuously at about ½ cfs (cubic foot/second) all year. The model shows that it is not flashy, but it is based on assumptions. Lee—how was the steady state calculated? Dan—to refill to a specific target and keep it there, think it is 1799, the current levels are around 1790. Gene—will the water that returns to the river be available for downstream withdrawals? That would be more than 30% loss. Dan— those could come from either the Columbia or the Methow. those would likely come from the Columbia, not the Methow. Jennifer—would there be some kind of economic analysis from this? There is a recreational fishery there, but it may not be much of a benefit, since fishing is happening now. John—would the additional 9 feet benefit the fishery? Dick—yes, we currently have impacts to oxygen in the lake. Don't know how much until we do it. As far as how water is taken out of the Methow, most would be taken out before July 15th during the high flow period, would only be filled intermittently the rest of the year based on the minimum instream flow rule. Chris J—so, this project benefits the Methow river about ½ cfs during base flows? Mark—yes. John—this is essentially undetectable. Jennifer—does this set any kind of a precedent? If we were going to get a lot of these proposals to withdraw during the spring, then we could start affecting channel forming flows. Mark—precedent was set years ago, this project looks at what the other benefits that we hadn't looked at before from re-timing this water. Chris J—it is a tremendous opportunity for small streams where the base flows are so low that ½ cfs would make a big difference. Dan—think it comes back to an economic issue and the weighing of the public benefit. Mark—the cost for construction is in the 2-2.1 million range. Dan—plus around \$50,000 O&M. John—how much water is going into the Methow River compared to how much is being taken out after the 10 years? Dan—about ~~500~~ cfs taken out, then ~~3.50~~ or so cfs put back in. Mark—but it is coming out at high flow. John—benefits will all depend on when you are pumping, could have changes to the hydrograph due to climate change, descending limb of the hydrograph is when things start to get dicey. Should be pumping at the peak flows only. Dan—Ecology has to test for impairment (minimum flow rule), public interest (additional flow regimes could be contemplated). Dick—would only be pumping from April to Sept. 30th. Jennifer—mid August to September is a pretty rough time to be pumping from the river. Dan—if the well is located in the gravels, then the cone of depression doesn't reach out very far, would have to do pump testing. Lee B—did you check on the domestic well impacts on the levels? Dan—yes, we looked at existing undeveloped lots in Twin Lakes, whether they can be developed to reach groundwater. Model assumes full development of all available lots. Steady state is full development scheme. Gene—how many cfs do you take out of the river at a time, and at late season, how does it compare to the recharge? Dan—the pumps would take about 4.5 cfs, which would take 55 days, then would return at ½ cfs every day for 365 days per year. John—so 9 days of recharge for every day of pumping. Ken—could you use Wolf Creek infrastructure? Dan—a number of options were looked at, and this was the one that

came up. Chris J—the upcoming scoping is an opportunity for us to comment on whether the impact to the river of 4.5 cfs worth the .5 cfs of recharge. From my perspective, there isn't much benefit to the Methow river of ½ cfs recharge. Mark—the open house is in Winthrop at the barn Nov 7th, 5-7 pm, and we are accepting comments through December 14th. Chris J—who is the lead for comments? Mark—send them to Ecology, and we are responsible for providing to the county. NOAA was sent the DS information. Jennifer—is this for construction too? Mark—this is for the whole project. Dick—the SEPA document outlines the whole benefit that the project offers to the community. Qualifies for the Columbia Basin funding as a storage project. Hans—who owns this and is liable for managing it in the future? Dick—it could be a mitigation project for the PUD, Methow Watershed Council could be responsible if it had more authority as an organization. Hans—is resolving the long-term manager/owner a contingency on the approval of funding? Mark—not necessarily. Not included in the capital budget request. Dan—legislature gave the Office of the Columbia River the opportunity to recover costs, this factors into the economics as well. Mark—we are directed to benefit both instream and out of stream uses. Chris B—did the model predict if you were to do build out what the lake levels would drop to? Dan—yes, can bring to the public meeting. Gene—fishery goals? Ken—Big Twin Lake has some really nice trout. Discussion—stocking, benefits.

Roundtable

Derek Van Marter—UCSRB: UCSRB directors are meeting October 25th at Rocky Reach dam.

Jeri Timm—Trout Unlimited: NRCS was here yesterday, looked at the Beaver Creek projects; we had a Beaver Creek barbecue with MSRF, YN, TU, Landowners. We are doing a Western Native Trout Initiative project to work on feedlot rotations. There is also a new TU chapter, Methow-Okanogan highlands; they want to do projects. We have a new TU office up here in Twisp next to the dentist's office, and we will be moving over there beginning of November.

Jennifer Molesworth—Bureau of Reclamation: TU, Reclamation, office of the Columbia River are looking at long-term solutions for MVID West; the goal is to have them out of the Twisp River and out of continuity with the Twisp River by spring of 2015.

Kate Terrill—USFWS: reminder that USFWS had a call for restoration proposals that are due Friday.

Dave Thompson—an ecologist new to the area, was here this summer looking at how trees are affected by climate, looking for volunteer and for employment opportunities

Ken Bevis—WDFW is having a district team meeting on October 24th in Omak at DOT at 9:00

Gene Shull—USFS: we have had some resolution to the issue of price of large wood with root wads, call Megan; she is working up the costs, think it was a pretty big drop. Have a Chewuch Roads field trip next Monday, if you aren't already on that list and you want to go, let Gene know; we will look at roads that will be decommissioned in the next year, work we've done, future funding partnership opportunities. Also working on finishing up our draft for the Eightmile Creek focus watershed, would like comments, will send out draft through Jessica.

Michael Notaro—landowner outreach: potluck at Beaver Creek was a success, Beaver Creek story is a great success story, will be talking with people about putting that story together. Probably, December or January for a presentation.

Lee Bernheisel—concerning dissemination of information on projects, think every project needs to go through scrutiny of the group, so that we can make comments, feels like a good old boys club in a lot of cases, and that people don't want to criticize other people's projects. Think we should have information available to the public. Came to the meetings to get information in a narrative format, but found it very difficult. Think these discussions could be very valuable to the projects. Chris J—encourage you to look at the new website www.methowrestorationcouncil.org. You are correct that there are parallel processes and timelines that are outside of our purview. For a fairly recent creation, we do share a lot of information.

Lee B—concerned that we get the best bang for the buck on how we do these projects.

Discussion—how to better coordinate information, sensitivity issues, when to bring the information forward to the group.

Allen Lebovitz—WDNR: this is my first MRC meeting. I am a Habitat Restoration specialist for the aquatics program at DNR, out of Nacelle; it is an 8-hour drive, but it was worth it. It looks like there is some good information sharing going on compared to other places. The DNR public safety checklist, DNR has given me the opportunity to revisit that, we have gone through a revision process that I hope will streamline things and make it more common sense, make it easier for project sponsors. We are collaborating with WDFW on that, hope to have a synchronized form that helps both agencies with public safety on public lands so you can get it all in one form. DNR use authorization has become Attachment E in the JARPA; the application questionnaire a set of instructions on how to fill out Section E in the JARPA, trying to cut back on repetitiveness. Would like to get comments and inputs on the forms. Chris J—the original intent of the JARPA was to allow the counties to act as a clearing house, this has been a bit undermined. Allen—true; we need to have Attachment E sent directly to us. Roy—who are you working with at WDFW? Allen—the fee structure has complicated things, can't remember the names. Also, after having the ability to start working with YN in particular, we have gained the ability to cross departments in DNR between SOAL and uplands; I may become the point of contact for all aquatic restoration projects in your area. Chris B—that would be a really good thing. Experience is that DNR would also like to be lead in SEPA. Allen—it depends, but sometimes yes. Also, I will be putting forward the idea to have DNR work on restoration program on DNR lands in Big Valley—will keep you posted. Jennifer—as DNR looks at disposing of their riverine lands, is there any way to protect it? Allen—interesting issue, dealing with public trust; we are mandated to protect that. If you know of tracts, contact me and I can work internally. Will see how far can go with that. Sideboard is that it has to involve aquatic resources.

Jarred Johnson—Yakama Nation: At the next MRC I will be presenting design concepts for Beaver Creek restoration.

Amanda Barg—WDFW: I will probably be contacting several of you in the next several weeks regarding screening projects.

John Crandall—Fish guides are here. It was a long time in coming, and thanks to everyone who helped with language, photos, etc. It is a fish guide, has watershed information, maps, fish distribution, safe handling, 89-90% if photos are from local folks. We are trying to be strategic in our distribution, it is free.

Hans Smith—Yakama Nation: thanks to John for producing the Fish Guide. He deserves lot of credit. Great presentation today to Mark and Dan, and thanks for coming here to present it. A good example of what we are trying to produce. Updates on program level—we did our tours last month, and there may

be another limited chance in November. We may want to add to another tour if someone else is doing one. Reach Assessments—we did not produce an RA for the middle Twisp reach as planned, not sure when it will go back in the queue, Libby Creek RA is done and on our web site for download. We are working on the Two Channels project for next year in M2, coordinating with Ecology, WDFW, a lot of agency coordination. Also private landowners involved; it is a good large-scale side channel restoration project for next year. 1890's Side Channel planned for 2014, acquisition through PRC is moving forward. Multiple wood projects moving forward, continuing with permitting for next year. On the Twisp, we are finishing up on the wood structures at the left bank work we did, doing some planting, Poorman Creek Road, and RM 3 restoration projects are in development. We have baseline monitoring assessment reports, as-builts, basis of design reports will be coming out, may make an announcement, and may be available on website.

Chris Johnson—the MRC website is available, www.methowrestorationcouncil.org; it has a calendar for meetings, events.

Dan—please put the Twin Lakes project open house on the web site; link to web site

Adjourn

Next MRC will be on November 20th.

Definitions of Commonly used Acronyms	
ANS	Aquatic Nuisance Species
AREMP	Aquatic and Riparian Effectiveness Monitoring Program
BEF	Bonneville Environmental Foundation
BO/BiOp	Biological Opinion
BPA	Bonneville Power Administration
CBFWA	Columbia Basin Fish and Wildlife Authority (pronounced "cubfwah")
CCFEG	Columbia Cascade Fisheries Enhancement Group (formerly Upper Columbia Regional Fisheries Enhancement Group)
CHaMP	Columbia Habitat Monitoring Program
CMZ	Channel Migration Zone
CREP	Conservation Reserve Enhancement Program
CSF	Community Salmon Fund
EDT	Ecosystem Diagnosis and Treatment
ESA	Endangered Species Act
FCRPS	Federal Columbia River Power System
FFFPP	Family Forest Fish Passage Program
FIA	Forest Inventory and Analysis program (USFS)
HACCP	Hazard Analysis and Critical Control Point
HGMP	Hatchery Genetic Management Plan
HPA	Hydraulic Project Approval
HSRG	Hatchery Scientific Review Group
HWS	Habitat Work Schedule
IMW	Intensively Monitored Watershed
IS	Implementation Schedule
ISEMP	Integrated Status and Effectiveness Monitoring Project
ISRP	Independent Scientific Review Panel
IT	Implementation Team
LW/LWD	Large Wood/Large Woody Debris
M2	Middle Methow (a project area defined as the reach between Winthrop and Twisp)
MaDMC	Monitoring and Data Management Committee (pronounced "madmac")
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MRC	Methow Restoration Council
MSRF	Methow Salmon Recovery Foundation (pronounced "em-surf")
MVRD	Methow Valley Ranger District
MWC	Methow Watershed Council
MYAP	Multi-year Action Plan (also sometimes called the 3-year workplan)
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPCC	Northwest Power and Conservation Council
OBMEP	Okanogan Basin Monitoring and Evaluation Program
OWL	Okanogan Wilderness League
PCSRF	Pacific Coastal Salmon Recovery Fund (pronounced "Pacsurf")

PIBO	PACFISH/INFISH* Biological Opinion
PNAMP	Pacific Northwest Aquatic Monitoring Partnership
PUD	Public Utility District
QAQC	Quality Assurance, Quality Control
RA	Reach Assessment
RCO	(Washington State) Recreation and Conservation Office
REI	Reach-based Ecosystem Indicators (used in Reach Assessments)
RFEG	Regional Fisheries Enhancement Group
RM	River Mile
RPA	Reasonable and Prudent Alternative(s)
RTT	Regional Technical Team
SOAL	State Owned Aquatic Lands
SOW	Statement of Work
SPIF	Specific Project Information Form (used with the Corps ESA programmatic)
SRFB	(Washington State) Salmon Recovery Funding Board (pronounced "surfboard")
STEM Database	Status, Trend and Effectiveness Monitoring database at NOAA's Northwest Fisheries Science Center
UCSRB	Upper Columbia Salmon Recovery Board
USFS	US Forest Service
USGS	US Geological Survey
VSP	Viable Salmonid Population
WAT	Watershed Action Team (the MRC is our WAT)
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WNFH	Winthrop National Fish Hatchery
WWP-TU	Washington Water Project of Trout Unlimited (formerly Washington Rivers Conservancy)
YN	Yakama Nation

*PACFISH/INFISH The PACFISH/INFISH Biological Opinion (PIBO) Effectiveness Monitoring Program was initiated in 1998 to provide a consistent framework for monitoring aquatic and riparian resources on most Forest Service and Bureau of Land Management lands within the Upper Columbia River Basin. This 7-year status report gives our funding sources, partners, and the public an overview of past activities, current business practices, products and publications, and future program directions. It is designed to increase accountability and summarize our accomplishments during the initial phase of the program.